Virginia Stationary Source Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, chapter 13, '10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-305 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Permit Number	Effective Date	Expiration Date	
PRO-50126	May 9, 2001	May 9, 2006	

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted

Permittee Name:	VCU Steam Plant MCV Campus
Mailing Address:	P.O. Box 980166 Richmond, VA 23298
Facility Name:	VCU Steam Plant MCV Campus
Facility Location:	1020 Oliver Hill Way, Richmond, VA

Permit Amended this 13th day of October, 2004.

Robert G. Burnley, Director, Department of Environmental Quality

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I. Facility Information

Permittee/Facility

VCU Steam Plant MCV Campus 1020 Oliver Hill Way P.O. Box 980166 Richmond, VA 23298

Responsible Official/Contact person

David A. Mitchell General Manager (804) 828-1020 (804) 828-3766

County-Plant Identification Number: 760-0013

Facility Description:

The facility is a fossil fuel-fired steam generating plant (SIC 4961) which is operated by Virginia Commonwealth University (VCU) in order to provide steam to various VCU buildings and facilities, including certain Medical College of Virginia (MCV), a division of VCU, buildings. The current equipment, three 150 MMBtu/hr boilers, began construction in May 1994 and began operation on April 30, 1996. These boilers were permitted originally in a NSR permit dated February 22, 1993. The permit has since been amended four times, April 29, 1993 and December 16, 1996 to clarify stack testing requirements, March 7, 2001 to properly designate state-only enforceable conditions, and March 31, 2003 to modify the different fuels.

II. Emissions Unit Specific Requirements

A. Insignificant Emission Unit Inventory List

Emission Unit No.	Emission Unit Description	Citation (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
GNE-001	Diesel-fired emergency	5-80-720 C.2.	N/A	750 kW
GNE-002	Diesel-fired emergency	5-80-720 C.2.	N/A	750 kW

B. Significant Emissions Unit Inventory List

1. Process Units

Emission Unit No.	Stack No.	Emission Unit Description	Manufacturer and Date of Construction	Size/Rated Capacity
BOE-001	BOS-001	#6 oil/#2 oil/natural gas- fired boiler	Babcock and Wilcox Constructed 1996	150.6 MMBtu/hr (heat input)
BOE-002	BOS-002	#6 oil/#2 oil/natural gas- fired boiler	Babcock and Wilcox Constructed 1996	150.6 MMBtu/hr (heat input)
BOE-003	BOS-003 #6 oil/#2 oil/natural gas- fired boiler C		Babcock and Wilcox Constructed 1996	150.6 MMBtu/hr (heat input)
TKE-001	TKE-001 TKS-002 #2/#6 fuel oil construction storage tank		constructed 1996	243,600 gallons
TKE-002	TKS-002	#2/#6 fuel oil storage tank	constructed 1996	243,600 gallons

III. Emission Unit Specific Permit Terms (BOE-001, BOE-002, BOE-003, Babcock and Wilcox boilers and TKE-001, TKE-002, #2/#6 fuel oil storage tanks)

A. Limitations

- Nitrogen Oxides (NO_x) emissions from each boiler shall be controlled by low-NO_x burners, flue-gas recirculation and good operating procedures to the extent necessary to minimize NO_x emissions and meet the lbs/10⁶ Btu emission standards in Section III. A - 8,9. The boilers shall be provided with adequate access for inspection.
 - (9 VAC 5-80-1800 C of State Regulations and Condition 3 of 3/31/03 NSR permit)
- 2. Carbon monoxide and volatile organic compound emissions from each boiler shall be controlled by the use of good combustion operating practices.
 - (9 VAC 5-80-1800 C of State Regulations and Condition 5 of 3/31/03 NSR permit)
- 3. Sulfur Dioxide (SO₂) emissions from each boiler shall be controlled by low-sulfur fuel oil containing 0.5% sulfur by weight or less. The boilers shall be provided with adequate access for inspection.
 - (9 VAC 5-80-180 C of State Regulations and Condition 4 of the 3/31/03 NSR permit)
- 4. The approved fuel for each boiler shall be natural gas, #2 fuel oil and #6 fuel oil. A change in the fuels may require a permit to modify and operate.
 - (9 VAC 5-80-1720 of State Regulations and Condition 6 of 3/31/03 NSR permit)
- 5. The permittee shall obtain a certification from the fuel supplier with each shipment of #2 oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the #2 oil was received:
 - c. The volume of #2 oil delivered in the shipment;
 - d. A statement that the #2 oil complies with the American Society for Testing and Materials specifications [D396-78] for numbers 1 or 2 fuel oil, and
 - e. The sulfur content of the #2 oil.
 - (9 VAC 5-80-1720 of State Regulations and Condition 20 of 3/31/03 NSR permit)
- The three boilers shall consume no more than a total of 3,500 million cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12 month period.
 - (9 VAC 5-80-1800 C of State Regulations and Condition 7 of 3/31/03 NSR permit)
- 7. The three boilers shall consume no more than a total of 5,000,000 gallons of fuel oil (#2 and #6 combined) per year, calculated monthly as the sum of each consecutive 12 month period, when no natural gas is burned in any consecutive 12 month period. When natural gas is

burned in any 12 consecutive month period, the three boilers shall consume no more than the following total quantity of fuel oil (#2 and #6 combined), calculated monthly as the sum of each consecutive 12 month period:

 $[5000 - 0.95 \text{ x (G)}] 10^3$ gallons per year; when (G) <= 144

 $[5072 - 1.45 \times (G)] \cdot 10^3$ gallons per year; when (G) > 144

where (G) is the total quantity of natural gas, in million cubic feet, burned by the three boilers during the consecutive 12 month period.

(9 VAC 5-80-1800 C of State Regulations and Condition 8 of 3/31/03 NSR permit)

- 8. Nitrogen Oxides (NO_x) emissions from each boiler (BOE-001, BOE-002, BOE-003), while firing natural gas, shall not exceed an annual average of 0.08 lbs/10⁶ Btu, calculated monthly for each 12 consecutive month period.
 - (9 VAC 5-80-1800 C of State Regulations and Condition 11 of 3/31/03 NSR permit)
- 9. Emissions from the operation of the boilers designated BOE-001, BOE-002, BOE-003, shall not exceed the limits specified below, per boiler:

Natural Gas Particulate Matter			1.2	lbs/hr
PM-10			1.2	lbs/hr
Sulfur Dioxide			0.1	lbs/hr*
Nitrogen Oxides (as NO2)	0.1	lbs/10 ⁶ Btu**	15.6	lbs/hr
Carbon Monoxide			14.9	lbs/hr
Volatile Organic Compounds			2.1	lbs/hr
#6 Fuel Oil				
Particulate Matter			9.3	lbs/hr
PM-10			8.0	lbs/hr
Sulfur Dioxide			78.5	lbs/hr*
Nitrogen Oxides (as NO2)	0.4	lbs/10 ⁶ Btu**	57.5	lbs/hr
Carbon Monoxide			15.8	lbs/hr
Volatile Organic Compounds			2.1	lbs/hr
#2 Fuel Oil				
Particulate Matter			3.3	lbs/hr
PM-10			1.7	lbs/hr
Sulfur Dioxide			78.5	lbs/hr*
Nitrogen Oxides (as NO2)	0.2	lbs/10 ⁶ Btu**	30.1	lbs/hr

Carbon Monoxide 15.8 lbs/hr
Volatile Organic Compounds 2.1 lbs/hr

- * (3-hour rolling average)
- ** (30-day rolling average)

(9 VAC 5-80-1800 C, 9 VAC 5-80-1880 A of State Regulations and Condition 10 of the 3/31/03 NSR permit)

10. Emissions from the combined operation of the three boilers (BOE-001, BOE-002, BOE-003) shall not exceed the limits specified below:

Particulate Matter	23.3	tons/yr
PM-10	20.0	tons/yr
Sulfur Dioxide	196.3	tons/yr
Nitrogen Oxides (as NO2)	145.6	tons/yr
Carbon Monoxide	172.9	tons/yr
Volatile Organic Compounds	23.7	tons/yr

(9 VAC 5-80-1720, 9 VAC 5-80-1880 A of State Regulations and Condition 12 of 3/31/03 NSR permit)

- 11. Visible emissions from each boiler shall not exceed 10 percent opacity except during one sixminute period per hour which shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
 - (9 VAC 5-80-1800 C of State Regulations and Condition 13 of 3/31/03 NSR permit)
- 12. The sulfur content of any oil (#2 and #6) burned in the three new boilers shall not exceed 0.5 percent by weight per shipment. Compliance with this condition will be determined as state in Section III. A 5 and Section III. B 4.
 - (9 VAC 5-80-1800 C of State Regulations and Condition 9 of 3/31/03 NSR permit)

B. Periodic Monitoring and Recordkeeping

The following conditions, 1-6, are included in this Title V permit to implement the requirements of the CAM regulations (40 CFR 64).

- 1. Continuous emission monitors shall be installed to measure and record opacity and the concentration of nitrogen oxides. The opacity monitors shall be located on each of the boiler stacks. Each nitrogen oxides monitor shall be co-located with a CO₂ or O₂ monitor. Recorded data from the nitrogen oxides monitors shall be used to determine compliance with the lbs/10⁶ Btu emission standards specified in Section III. A 8,9. The monitors shall be maintained, located, and calibrated in accordance with approved procedures (ref. 40 CFR 60.13). A 30 day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the Director, Piedmont Region.
 - (9 VAC 5-80-1720 of State Regulations and Condition 15 of 3/31/03 NSR permit)

- The continuous monitoring data generated by the nitrogen oxides and opacity monitors may, at the discretion of the Board, be used as evidence of violation of the emission standards. These data shall be kept on file and made available to the Department of Environmental Quality upon request.
 - (9 VAC 5-80-1720 of State Regulations and Condition 16 of 3/31/03 NSR permit)
- The nitrogen oxides and opacity monitoring systems shall meet a minimum data availability of 90 percent of boiler operating hours on a 12 month rolling average. The nitrogen oxides monitoring systems shall also meet the quality assurance requirements of 40 CFR 60, Appendix F.
 - (9 VAC 5-80-1720 of State Regulations and Condition 18 of 3/31/03 NSR permit)
- 4. The permittee shall conduct the following monitoring:
 - a. On each day that a boiler (BOE-001, BOE-002, BOE-003) fires #6 fuel oil, the permittee shall collect and analyze (for sulfur and heat content) an oil sample in an as-fired condition from each boiler firing oil in accordance with Method 19 of 40 CFR 60, Appendix A.
 - b. Alternatively, upon each occasion where a #6 fuel tank (TKE-001 or TKE-002) is partially or wholly refilled or filled, the permittee shall collect and analyze (for sulfur and heat content) an oil sample from the fuel tank. Each sample shall be analyzed in accordance with Method 19 of 40 CFR 60, Appendix A.
 - (9 VAC 5-80-1720 of State Regulations and Condition 19 of 3/31/03 NSR permit)
- 5. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:
 - a. The yearly throughput of natural gas to each boiler, calculated monthly as the sum of each consecutive 12 month period.
 - b. The number of hours of operation of each boiler.
 - c. The yearly throughput of #6 fuel oil to each boiler, calculated monthly as the sum of each consecutive 12 month period.
 - d. The yearly throughput of #2 fuel oil to each boiler, calculated monthly as the sum of each consecutive 12 month period.
 - e. Records of #2 fuel oil certificates required by Section III. A 5.
 - f. Records of the #6 oil sulfur analyses required by Section III. B 4.
 - g. A maintenance schedule for the boilers and monitors.
 - h. Scheduled and unscheduled maintenance records for the boilers and monitors.

- i. Inventory of spare parts to minimize duration of monitor breakdowns.
- j. Written operating procedures for the boilers and monitors.
- k. Operator training records.
- 1. Records showing the dimensions of the two #6 oil storage tanks and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the storage vessel.

These records shall be available for inspection by the DEQ and shall be current for the most recent two years.

- (9 VAC 5-50-50, 9 VAC 5-80-1720 of State Regulations and Condition 24 of 3/31/03 NSR permit)
- The permittee shall routinely monitor and control the combustion gas flow through the FGR system to ensure the FGR system is operating.
 (9 VAC 5-80-110 and 40 CFR 64)

C. Reporting

- 1. The permittee shall submit fuel quality reports to the Piedmont Region within 30 days after the end of each semi-annual period. If no shipments of #2 oil were received during the semi-annual period, the semi-annual report shall consist of the dates included in the semi-annual period and a statement that no #2 oil was received during the semi-annual period. If #2 oil was received during the semi-annual period, the reports shall include:
 - a. Dates included in the semi-annual period,
 - b. A copy of all fuel supplier certifications for all shipments of #2 oil received during the semi-annual period or a semi-annual summary from each fuel supplier that includes the information specified in Section III. A 5 for each shipment of #2 oil, and
 - c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the #2 oil burned or received at the facility.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency.

(9 VAC 5-80-1720 of State Regulations and Condition 23 of 3/31/03 NSR permit)

- 2. The permittee shall submit reports to the Director, Piedmont Region within 30 days after the end of each calendar quarter as described in 40 CFR 60.49b (h) and (i). Details of the quarterly reports are to be arranged with the Director, Piedmont Region. With regard to the opacity monitor, the quarterly report shall include excess emission and monitoring system downtime reports and/or summaries in accordance with 40 CFR 60.7 (c) and (d). Excess opacity emissions are defined as periods for which the average opacity exceeds the limits given in Section III. A 11.
 - (9 VAC 5-80-1720 of State Regulations and Condition 17 of 3/31/03 NSR permit)

D. General

 Each boiler (BOE-001, BOE-002, BOE-003) shall be operated in accordance with the requirements of 40 CFR 60 Subpart Db.
 (40 CFR 60 Subpart Db)

IV. Facility-wide Conditions

- 1. Unless specified otherwise in this part, on or after the date on which the performance test required to be conducted by 9 VAC 5-50-30 is completed, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater that 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
 - (9 VAC 5-50-80 of State Regulations)
- 2. In order to minimize the duration and frequency of excess emissions, including visible emissions, due to malfunctions of process equipment or air pollution control equipment, the permittee shall:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
 - b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.
 - (9 VAC 5-170-160 and 9 VAC 5-50-20 of State Regulations)
- 3. The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.
 - (9 VAC 5-170-160 and 9 VAC 5-50-20 of State Regulations)

V. General Permit Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110 N)

B. Permit Expiration

This permit shall become invalid five years from the date of issuance. The permittee shall submit an application for renewal of this permit no earlier than 18 months and no later than six months prior to the date of expiration of this permit. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the DEQ on the renewal application.

(9 VAC 5-80-110 D and 9 VAC 5-80-80 F)

C. Recordkeeping and Reporting

- 1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement. (9 VAC 5-80-110 F)
- Records of all monitoring data and support information shall be retained for at least five years
 from the date of the monitoring sample, measurement, report, or application. Support
 information includes all calibration and maintenance records and all original strip-chart
 recordings for continuous monitoring instrumentation, and copies of all reports required by
 the permit.

(9 VAC 5-80-110 F)

- 3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than <u>March 1</u> and <u>September 1</u> of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
 - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

If submitted by January 31 and July 31 of each year, the semi-annual reports required by this condition may be combined with reports required by Section III. C-1 of this permit. (9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than <u>March 1</u> each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- 1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- 2. The identification of each term or condition of the permit that is the basis of the certification.
- 3. The compliance status.
- 4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- 5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00) U. S. Environmental Protection Agency, Region III 1650 Arch Street Philadelphia, PA 19103-2029.

If submitted by February 1 of each year, the annual report required by this condition may be combined with the annual report required by condition 14 of section III of this permit. (9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Piedmont Region within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VII.C.3. of this permit. (9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Director, Piedmont Region within four (4) daytime business hours of the occurrence. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shutdown. (9 VAC 5-80-250)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. (9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application. (9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

 This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(9 VAC 5-80-110 G.4)

- 2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:
 - Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;
 - b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;
 - c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;
 - d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;
 - e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

 The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110 G.6) Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G. (9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

- 1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
- 4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- 5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- 1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- 3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- 4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

- 2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- 3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

- No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another. (9 VAC 5-80-160)
- In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)
- 3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

- 1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.
- 2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.

- d. For malfunctions that occurred for one hour or more, the permittee submitted to the Board by the deadlines described in Failure/Malfunction Reporting above, a notice and written statement containing a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notice fulfills the requirement of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements.
- 3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- 1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
- 2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- 3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

VI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been explicitly deemed to be not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
None identified	N/A	N/A

Nothing in this permit shield shall alter the provisions of ' 303 of the Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the (i) administrator pursuant to ' 114 of the Clean Air Act, (ii) the Board pursuant to ' 10.1-1314 or ' 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to ' 10.1-1307.3 of the Virginia Air Pollution Control Law. (9 VAC 5-80-140 of State Regulations)